

0.04 inches; Ft. Leavenworth, Kan., 0.06 in.; St. Marys, Wy. Ty., and Trinidad, Col., 0.07 in.; San Diego, Cal., 0.10 in.; Punta Rassa, Fla., 0.14 in.; Boerne and Indianola, Tex., 0.18 in.

*Hail.*—Salt Lake City, 27th; Santa Fe, 3rd; Cheyenne, 19th; Pt. San Jose, Cal., 6th; Ft. Garland, Col., 21st, 31st; Ft. Columbus, N. Y., 8th, 9th; Fort Concho, Tex. 27th; Ft. Fred Steele, Wy. Ty., 3rd, 19th, 20th.; Ft. Fetterman, Wy. Ty., 3rd; Green Springs, Ala., 26th; Olivet, Dak., 23rd; Gainesville, Ga., 22nd; Mt. Sterling, Ill., 1st, 2nd, 20th, 21st; Anna, Ill., 16th; Spiceland, Ind., 10th, 29th; Cresco, Ia., 9th, 12th; Independence, Ia., 28th; Gardiner, Me., 31st; Sandy Springs, Md., 17th; Camp McDermitt, Nev., 26th; San Francisco, 6th, 7th; Portland, Or., 2nd; Corsicana, 26th, very severe, five miles NW. of station, stones fell to the depth of three inches; Somerset, Mass., 9th; New Bedford, Mass., 17th, 22nd; Rowe, Mass., 14th; Fall River, Mass., 9th, 17th, 22nd; Detroit, 5th; Nirvana, Mich., 12th; Brookhaven, Miss., 16th, 21st, 22nd; Fayette, Miss., 22nd; Genoa, Neb., 27th; Trenton and Princeton, N. J., 8th; Vineland, N. J., 26th; Freehold, N. J., 6th, 8th; Melissa, Tex., 26th, very severe, stones drifted in some places to the depth of two feet; Ardenia, N. Y., 22nd; Flushing, N. Y., 9th; Nile, N. Y., 8th; Murphy, N. C., 30th; Webster, N. C., 22nd; Westerville, Ohio, 24th, 29th; Bellefontaine, Ohio, 26th; Jacksonburg, Ohio, 10th, 20th; North Lewisburg, Ohio, 24th; Catawissa, Pa., 22nd; Battle Creek, Mich., 10th; New Westminster, B. C., 2nd, 7th, 8th, 9th, 10th, 22nd; Fillmore, Utah, 20th; Roseburg, Or., 20th.

*Rainy Days.*—The number of days on which rain or snow has fallen varies as follows: New England, 11 to 21; Middle States, 6 to 20; South Atlantic States, 3 to 16; Gulf States, 3 to 8; Lower Lakes, 16 to 25; Upper Lakes, 11 to 17; Ohio valley and Tennessee, 10 to 19; Upper Mississippi valley, 12 to 18; Lower Missouri valley, 4 to 14; Eastern Slope, 0 in Kansas to 9 in western Dakota; Rocky Mountains, 0 in southern New Mexico to 13 in Montana; Western Plateau, 2 in southern Nevada to 17 in Idaho; Pacific coast, 4 in southern California to 23 in northwestern Oregon.

*Cloudy Days.*—For New England the number varies from 8 to 19; Middle States, 5 to 11; South Atlantic States, 2 to 12; Gulf States, 1 to 7; Lower Lakes, 12 to 23; Upper Lakes, 9 to 13; Ohio valley and Tennessee, 2 to 14; Upper Mississippi valley, 3 to 10; Lower Missouri valley, 4 to 11; Eastern Slope, 2 to 8; Rocky Mountains, 4 to 11; Western Plateau, 5 to 19; Pacific coast, 8 to 18.

*Snow* fell in the different districts as follows: *New England*, 1st, 2nd, 4th to 9th, 11th to 23rd, 25th to 31st; *Middle States*, 2nd, 3rd, 6th, 7th, 13th, 17th, 18th, 19th, 21st, 22nd, 26th; *Ohio valley and Tennessee*, 1st, 2nd, 14th to 20th, 25th, 30th, 31st; *Lower Lakes*, 2nd to 6th, 13th to 27th, 30th, 31st; *Upper Lakes*, 1st, 2nd, 4th, 5th, 6th, 12th to 24th, 26th, 27th, 31st; *Upper Mississippi valley*, 1st, 2nd, 3rd, 7th, 9th, 11th to 16th, 18th, 20th, 21st, 22nd, 23rd, 31st; *Eastern Slope*, 1st, 2nd, 3rd, 8th, 9th, 11th, 12th, 13th, 15th, 16th, 18th, 20th to 23rd, 31st; *Rocky Mountains*, 1st to 4th, 6th to 9th, 12th, 13th, 15th to 22nd, 27th, 31st; *Western Plateau*, 3rd, 6th to 9th, 19th, 20th, 21st; *Oregon*, 2nd, 4th, 6th, 7th, 8th; *California*, 2nd, 3rd, 6th to 8th; *British Columbia*, 4th, 9th, 10th, 22nd.

*Snow from a Cloudless Sky.*—Madison, Wis., 14th, one-fourth inch.

*Depth of Snow on Ground at end of Month.*—It varied as follows: *New England*—from 0 at Burlington and Eastport to 35 inches, and on Mt. Washington, 40 in. *Middle States*—northern portion, trace to 15 in.; at North Volney, N. Y., 0 to 4 feet deep in "openings" and 12 to 18 in. in the woods. *Lower Lake region*—0 to 3 in. *Upper Lake region*—0 to 5 in. *North Carolina*—observers at Murphy and Webster report snow on mountains. *California*—the Sacramento observer reports snow in the Sierra Nevada Mountains. Summit of *Pike's Peak*, 3 in.

*Droughts.*—Visalia, Cal., 10th, grain crops suffering for want of rain. Campo, Cal., 31st, vegetation drying up; cattle and sheep suffering badly. Kanab, Utah, 13th, 14th, very dry, vegetation suffering; 16th, farmers watering wheat; 17th to 31st, no rain, drought severe. Holton, Kan., 31st, ground very dry, grain crops suffering considerably. Independence, Kan., 31st, wheat, oats and grass very much in need of rain. San Antonio, Tex., 12th. Mason, Tex., 26th, wheat crop suffering, foliage and grasses very backward. Corsicana, Tex., 18th, crops suffering in various localities west of station; 26th, drought very severe; in some sections, ten miles west of station, it is reported that no rain has fallen for ten weeks. Gatesville, Tex., 12th, first rain this year. Austin, Tex., 31st, everything suffering from a protracted and severe drought, only 9.32 inches of rain since July 1st, 1878.

*Floods.*—Sacramento, Cal., 14th, 15th, river 23 feet and 4 inches above low-water mark, levee broken one-half mile above city, flooding the "tule" lands; also reported that far down the river crops in some instances submerged. Red Bluff, Cal., 4th, river rising very rapidly; 5th, 3 p. m., 17 feet and 10 inches above low-water mark, (danger-line 20 feet;) 6th, 3 p. m., 22 feet and 9 inches; 7th, river falling. Columbus, Ohio, 22nd, heavy rain-storm, Scioto river overflowed, washouts on all the railroads.

## RELATIVE HUMIDITY.

The average percentage of relative humidity for the month ranges as follows: New England, 68 to 76; Middle States, 52 to 77; South Atlantic States, 52 to 84; East Gulf States, 66 to 74; West Gulf States, 60 to 84; Lower Lakes, 71 to 79; Upper Lakes, 65 to 75; Ohio valley and Tennessee, 55 to 67; Upper Mississippi valley, 62 to 69; Lower Missouri valley, 55 to 60; Red River of the North valley, 75 to 89; Eastern Slope, 52 to 82; Western Plateau, 28 to 60; California, 57 to 79. *High stations* report the following not corrected for altitude: Mt. Washington, 88; Pike's Peak, 39; Santa Fe, 35; Cheyenne, 44; Denver, 45; Virginia City, 55; Colorado Springs, 61.